

Date: Thursday, 6/15/2006 3:17:22 PM
 User: Kim Johnston

Process Sheet

27

Customer : CU-DAR001 Dart Helicopters Services Drawing Name : AFT MAINTENACE STEP
 Job Number : 27605
 Estimate Number : 12455
 P.O. Number : N/A Part Number : D350591133
 This Issue : 6/15/2006 S.O. No. : N/A Drawing Number : D2946 REV A
 Prsht Rev. : NC Project Number : N/A
 First Issue : N/A Type : LARGE FAB ASSY Drawing Revision : A
 Previous Run : N/A Material : N/A
 Written By : *See comment below* Due Date : 7/5/2006 Qty: 4 Um: Each
 Checked & Approved By : *06.06.15*
 Comment : Est Rev:B 05.10.14 Modified step 10 KJ/EC

Additional Product

Job Number:



Seq. #: Machine Or Operation: Description :

1.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Photocopy bluefile and type labels as per, PPP D350-591-133 CHG002

06.06.25 KJ (4)

2.0

D2622120C

Extrusion



Comment: Qty.: 0.5000 Each(s)/Unit Total: 2.0000 Each(s)

Pick:

Qty Part Number Description Batch

.500 D2622-120C

Extrusion

327077

P.E. 06.07.06 4

3.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Cut D2622-120 extrusion to 62.06" long as per Dwg D2946

P.E. 06.07.06 4

2-Drill extrusion as per Dwg D3078 using Jlg DT9880 for rivets.

3-Deburr

Ensure that 57.09" minimum extrusion is kept and identify to be used for D350-591-215/-216.

P.E. 06.07.06 4

P.E. 06.07.06 4

4.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

D 06.07.07 (4)

| W/O: | | WORK ORDER CHANGES | | | | | |
|----------|-------|---|----|----------|-----|---------------------------------|--------------------------------|
| DATE | STEP | PROCEDURE CHANGE | By | Date | Qty | Approval Mfg / Design Mgr | Approval QC Inspector |
| 06-07-06 | 3.0-2 | No holes in step. Remove 3.2 instruction; for drilling holes per Dwg 3078. Permanent change | E | 06-07-06 | | | <i>[Signature]</i> 06-07-06 |
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| | | | Initial Design Mgr | Action Description Design Mgr | Sign & Date | | | |
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NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

Date: Thursday, 6/15/2006 3:17:22 PM
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT MAINTENACE STEP

Job Number: 27605

Part Number: D350591133

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

D2734

206 Step Endplate



Comment: Qty.: 2.0000 Each(s)/Unit Total: 8.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D2734

End Plate 324402

P.E. 06-07-07 4

6.0

D2944

Step Mounting Plate



Comment: Qty.: 2.0000 Each(s)/Unit Total: 8.0000 Each(s)

Pick:

Qty Part Number

Description Batch

2 D2944

Support 324351

P.E. 06-07-07 4

7.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

1-Deburr and Bevel ends for welding

2-Weld (1) End Cap and (2) Lugs using Jig DT8440 as per Dwg D2946

A/R Aluminum Rod M15689

3-Grind End Cap welds flush

P.E. 06-07-07 4

P.E. 06-07-08 4

FF 06-07-10 4

8.0

QC5/9

WELD INSPECTION



Comment: Inspect weld and work to Step 9

26-07-11 (9)
PD 06-07-10 (9)

9.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Chemical Conversion Coat as per QSI 005 4.1

P.E. 06-07-02 4

10.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

FF 06-07-13 4

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Process Sheet

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Drawing Name: AFT MAINTENACE STEP

Job Number: 27605

Part Number: D350591133

Job Number:



Seq. #:

Machine Or Operation:

Description :

11.0

LARGE FAB 1

LARGE FABRICATION RESOURCE 1



Comment: LARGE FABRICATION RESOURCE 1

Remove alodine prior to welding. Weld end cap as per Dwg D2946. Grind end cap weld flush.

A/R AL ROD BATCH: ~~M15689~~ M15689

PL 06-07-13 4

12.0

QC5/9

WELD INSPECTION



Comment: WELD INSPECTION

06-07-14 ⑨

13.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Touch Up Chemical conversion

SAD 06-07-14 ⑨

14.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat White Gloss (Ref: 4.3.5.1) as per QSI 005 4.3

06-07-17 ④

15.0

HAND FINISHING1

HAND FINISHING RESOURCE #1



Comment: HAND FINISHING RESOURCE #1

Wing Walk as per Dwg D2946 and QSI 005 4.4

FC 06-07-17 ④

16.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: Inspect Powder Coat and Wing Walk

17.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

• Pick Packing Kit

18.0

D22301

Mounting Lug



Comment: Qty.: 4.0000 Each(s)/Unit Total : 16.0000 Each(s)

Mounting Lug

Batch: B25554 ✓

| W/O: | | WORK ORDER CHANGES | | | | | |
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Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: AFT MAINTENACE STEP

Job Number: 27605

Part Number: D350591133

Job Number:



Seq. #:

Machine Or Operation:

Description :

19.0

D22303

Mounting Lug



Comment: Qty.: 4.0000 Each(s)/Unit Total : 16.0000 Each(s)

Mounting Lug

Batch: B27579 ✓

20.0

D2856400

Abrasion Strip



Comment: Qty.: 1.2606 f(s)/Unit Total : 5.0425 f(s)

Abrasion Strip 7.20" long x2

Batch: B27545 ✓

21.0

D2945

Step Mounting Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 4.0000 Each(s)

Step Mounting Plate

Batch: B27552 ✓

22.0

AN47A

Bolt



Comment: Qty.: 2.0000 Each(s)/Unit Total : 8.0000 Each(s)

Bolt

Batch: B19278 ✓

23.0

AN411A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total : 16.0000 Each(s)

Bolt

Batch: M17771 ✓

24.0

AN414A

Bolt



Comment: Qty.: 8.0000 Each(s)/Unit Total : 32.0000 Each(s)

Bolt

Batch: M100188 ✓

25.0

AN960JD416

Washer



Comment: Qty.: 14.0000 Each(s)/Unit Total : 56.0000 Each(s)

Washer

Batch: M101369 ✓

| W/O: | | WORK ORDER CHANGES | | | | | |
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes ☒ No ☐ DQA: ☒ Date: 06/07/24

NOTE: Date & initial all entries QA: N/C Closed: _____ Date: _____

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User: Kim Johnston

Process Sheet

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Drawing Name: AFT MAINTENACE STEP

Job Number: 27605

Part Number: D350591133

Job Number:



Seq. #:

Machine Or Operation:

Description :

26.0

MS21042L4

Nut



Comment: Qty.: 14.0000 Each(s)/Unit Total: 56.0000 Each(s)

Nut

Batch: M19025 ✓

AL 06/07/20

for
③ M.F.

27.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

06/17/21 (4)

28.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and pack for shipping as per PPP D350-591-213

Location: 0

PPP Rev: 0

06/17/21 (4)

29.0

DC

DOCUMENT CONTROL



Comment: DOCUMENT CONTROL

Inspection Level 21

06/07/24 (4)

Job Completion



U 06-06-21

| W/O: | | WORK ORDER CHANGES | | | | | |
|------|------|--------------------|----|------|-----|---------------------------------|--------------------------|
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Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

NOTE: Date & initial all entries

QA: N/C Closed: _____ Date: _____

DART

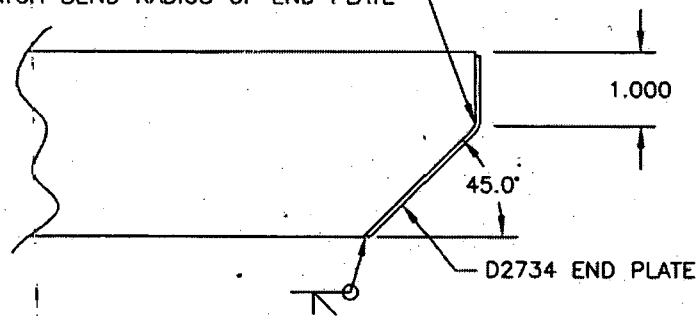
D2946 STEP ASSEMBLY PARTS LIST

| Part No. | Description | QTY |
|----------|---------------------|-----|
| D2946 | Step Assembly | X |
| D2622-63 | STEP EXTRUSION* | 1 |
| D2734 | END PLATE | 2 |
| D2944 | STEP MOUNTING PLATE | 2 |

*cut per drawing

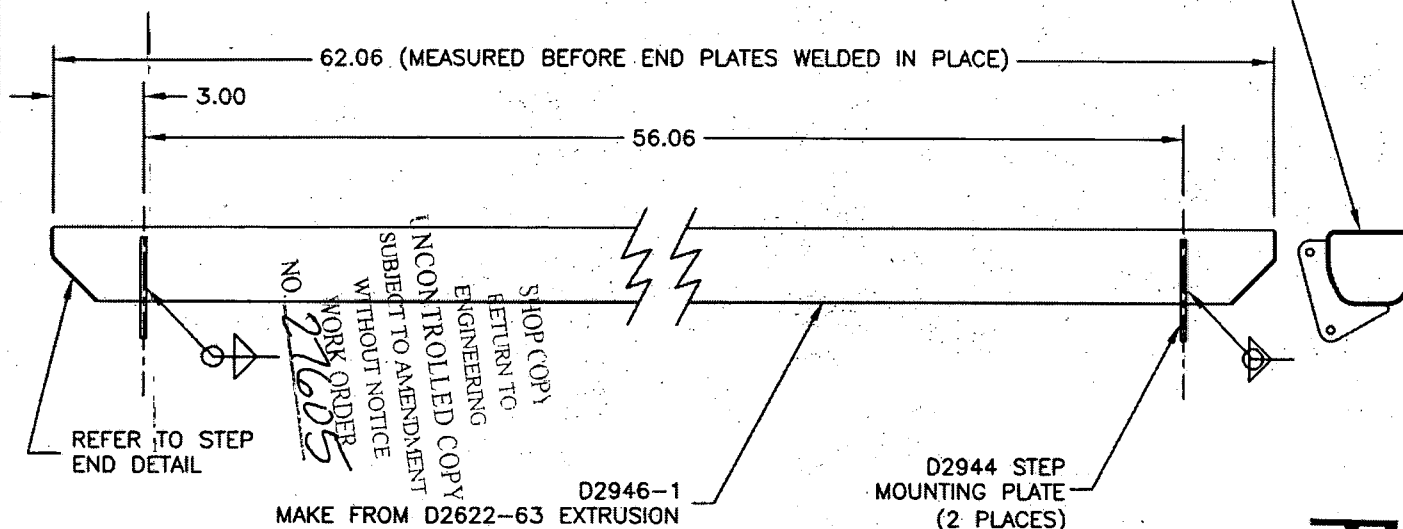
NOTE: ALL WELDS SHALL BE
100% VISUALLY
INSPECTED BY A
QUALIFIED INSPECTOR
PER DART QSI 004

ROUND CORNER OF EXTRUSION TO
MATCH BEND RADIUS OF END PLATE



TYPICAL STEP END DETAIL
NOT TO SCALE

APPLY BLACK ANTI-SKID
ON TOP SURFACE TO
BOTTOM OF TOP RADIUS



D2946-041 STEP ASSEMBLY

D2946 STEP ASSEMBLY

- 1) MAKE FROM D2622 STEP EXTRUSION
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT ENTIRE ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

| DESIGN | DRAWN BY | DART AEROSPACE LTD | |
|----------|----------|-----------------------------|--------------|
| CP | PH | HAMKESBURY, ONTARIO, CANADA | |
| CHECKED | APPROVED | DRAWING NO. | REV. B |
| DATE | DATE | TITLE | SHEET 1 OF 1 |
| 05.11.14 | 05.11.14 | STEP ASSEMBLY | SCALE |
| A | 99.12.13 | NEW ISSUE | 1:6 |
| B | 05.11.14 | UPDATE FINISHING NOTE | |

RELEASED
05-11-28